

CLAIMS

1. A microstrip line having at least a dielectric layer and a conductor layer disposed in order on a first electrode layer, said conductor layer comprises at least conductive nanoparticles and a binder resin.
2. A microstrip line according to claim 1, characterized in that said conductive nanoparticles contain at least one of gold, silver, copper, silver oxide, copper oxide, tin oxide, zinc oxide, and indium oxide, an average particle diameter of said conductive nanoparticles is 1nm or more and 500nm or less, and the content of said conductive nanoparticles in said conductor layer is 10wt% or more and less than 100wt%.
3. A microstrip line according to claim 1 or 2, characterized in that a characteristic impedance is 1Ω or less.
4. A microstrip line according to claim 1 or 2, characterized in that a second electrode layer is disposed on said conductor layer.
5. A method of fabricating the microstrip line according to claim 1 or 2, characterized by forming said conductor layer on said first electrode layer and forming said dielectric layer between said first electrode layer and said conductor layer by carrying out heat treatment at a temperature of 250°C or more and 600°C or less.
6. A method of fabricating the microstrip line according to claim 5, characterized in that said dielectric layer is formed by oxidizing, nitriding, or oxynitriding said first electrode layer.

CLAIMS

1. A microstrip line having at least a dielectric layer and a conductor layer disposed in order on a first electrode layer, said microstrip line characterized in
5 that said dielectric layer is formed by oxidizing, nitriding, or oxynitriding said first electrode layer, and said conductor layer comprises at least conductive nanoparticles and a binder resin.
2. A microstrip line according to claim 1, characterized in that said
10 conductive nanoparticles contain at least one of gold, silver, copper, silver oxide, copper oxide, tin oxide, zinc oxide, and indium oxide, an average particle diameter of said conductive nanoparticles is 1nm or more and 500nm or less, and the content of said conductive nanoparticles in said conductor layer is 10wt% or more and less than 100wt%.
- 15 3. A microstrip line according to claim 1 or 2, characterized in that a characteristic impedance is 1Ω or less.
4. A microstrip line according to claim 1 or 2, characterized in that a
20 second electrode layer is disposed on said conductor layer.
5. A method of fabricating the microstrip line according to claim 1 or 2, characterized by forming said conductor layer on said first electrode layer and forming said dielectric layer between said first electrode layer and said
25 conductor layer by carrying out heat treatment at a temperature of 250°C or more and 600°C or less.
6. A method of fabricating the microstrip line according to claim 5,

characterized in that said dielectric layer is formed by oxidizing, nitriding, or oxynitriding said first electrode layer.

- 5 7. (Amended) A method of fabricating the microstrip line according to claim 1
or 2, characterized in that said dielectric layer is formed between said first
electrode layer and said conductor layer by oxidizing, nitriding, or oxynitriding
said first electrode layer after forming said conductor layer on said first
electrode layer.